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NATO NAVAL ARMAMENTS GROUP

NAVAL GROUP 1 ON ABOVE WATER WARFARE

AGARD REPORT 342 ON PRECISION TERMINAL GUIDANCE FOR MUNITIONS

Note by the Secretary

1. Please find attached the Executive Summary, Outline of the Study on Precision Terminal Guidance for Munitions and the list of members of the working group.
2. The Study may be helpful for the work of the Specialist Team on Naval Fire Support.

(Signed) E. DRANSFELD

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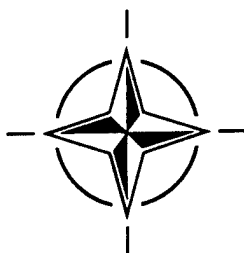
AGARD

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AGARD ADVISORY REPORT 342

Precision Terminal Guidance for Munitions (le Guidage terminal précis pour les munitions)

This report has been prepared as a summary of the deliberations of Working Group 02 of the Mission Systems Panel of AGARD.



NORTH ATLANTIC TREATY ORGANIZATION

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Precision Terminal Guidance for Munitions

(AGARD AR-342)

Executive Summary

Working Group 02 (originally Guidance and Control Panel working Group 13) was approved by the AGARD National Delegates Board in the Spring of 1991, shortly after the Gulf War with Iraq. The effectiveness of the guided munitions used in that conflict emphasised their importance in "conventional" warfare. Following this experience, the lessons learned from military interventions by NATO nations has often yielded less clear-cut results. In spite of these recent events, it seems clear that the future of precision guidance is assured, for reasons similar to those prevailing during the Gulf War, that is, their usefulness as a "force multiplier". This enables them to:

- maximise the effective fire power of launch platforms;
- minimise the number of missions required to carry out a given task;
- reduce collateral damage to non-combatants to a minimum.

The Working Group oriented its aims towards NATO military needs and the review of terminal guidance technology in relation to those needs, using the two following items as a starting point:

- the AGARD planning guidelines, which give a top-down view, derived from the NATO strategic concept;
- an analysis by GCP of the implications of the Gulf War for guidance and control.

The review of terminal guidance technologies was also aimed at identifying new capabilities not currently part of NATO's armoury. Projections into the future often produce speculative concepts that, in the light of deeper study, turn out to be unworkable, unaffordable or even misguided. But new ideas, however impractical at first sight, are the stimulus NATO needs to stay at the forefront of technology advances.

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14. Abstract <p>This report summarises the deliberations of Working Group 02 of the Mission Systems Panel (originally Working Group 13 of the Guidance and Control Panel) of AGARD. The broad objectives of the Working Group were to review present and future terminal guidance technology in relation to NATO military needs.</p> <p>The report includes: a review of existing terminal guidance capabilities and shortcomings; an analysis of NATO military needs; reviews of relevant technology trends, user concerns and future capabilities; and a statement of conclusions and recommendations in respect of the potential to meet NATO needs and for NATO cooperation. Appendices provide basic definitions, plus background outline descriptions of terrain referenced navigation, countermeasures, and relative GPS (Global Positioning System).</p>																			